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A series of photographs has likewise been taken of the Nova and of the neighbouring stars. The magnitude has been deduced, after measurement of the diameter of the photographic image, by means of a curve drawn in the manner suggested in the *Proceedings of the Royal Society*, May, 1886. This curve is based on the diameters of stars ranging from *β Tauri* (mag. 1·79) to *Piazzi* v. 62 (mag. 6·20).

Photographic Magnitude of Nova Aurigæ.

Date 1892.	Photographic Magnitude.
Feb. 11	5·09
13	5·35
16	5·39
18	5·70
Mar. 7	5·82

P.S.—The following further determinations of the magnitude of the Nova have been made since the date of this paper :—

	By Wedge Photometer. mag.	By Photographic Record.
Mar. 8	5·96	
12	6·93	7·13
13	7·07	
14	7·25	
18	8·76	8·93
19	9·10	9·26
22	9·32	

Oxford University Observatory:
1892 *March* 23.

The New Star in Auriga. By George Knott, B.A., LL.B.

The new star in *Auriga* was first seen here on the evening of February 3, when it appeared to be equal in magnitude to *χ Aurigæ.* As seen in the telescope its colour was yellowish. Viewed with a small direct-vision spectroscope, which fits over the field-lens of an ordinary negative eye-piece, mag. power 200, its spectrum was seen to be crossed by four broad bright lines in the green and blue. Lettering these in order from green to blue, *b* was in mid-distance between *a* and *d*, and *c* was at about one-third of the distance from *d* to *b*. The brightest of the four lines was *d* (solar F?), and *c* was the narrowest and faintest. On receiving, later in the evening, Dr. Copeland's Edinburgh Circular, I looked for other bright lines, and glimpsed one in the violet.

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The red end of the spectrum was very bright, but I failed to distinguish c, perhaps owing to want of definition in this part of the spectrum. On February 5 the four bright lines in the green and blue were again well seen, the order of brightness appearing to be *d b c a.* A faint bright line was seen in the violet, and one in the yellow or orange, and c was perhaps doubtfully distinguishable. On February 13 the order of brightness was noted *d, a b, c.*

The weather has been very unfavourable here for observation, but I give below my magnitude estimates of the new star. They were made with a binocular field-glass, mag. power 5, and the magnitudes of the comparison stars, χ and 26 *Aurigæ* and L 10143, were adopted from Professor Pritchard's *Uranometria Nova Oxoniensis.* The light of the new star would seem to have been subject to slight fluctuations, but perhaps these may be in part due to errors of observation.

	Mag.		Mag.
Feb. 3	5·1	Feb. 23	5·9
5	5·1	25	5·6
7	5·1	27	5·6
11	5·1	28	5·5
12	5·1	29	5·7
13	5·3	Mar. 5	5·8
20	5·8	7	6·1
22	5·9		

The star D.M. + 30° 913, 8·7 mag., precedes the new star $1^{m}\ 51^{s}{\cdot}05$, $7''{\cdot}68$ N. There is an 11·0 mag. star in the *nf* quadrant, measures of which relative to the new star were taken in position and distance with a filar micrometer on two nights with the following results :—

	Pos.	Dist.	Epoch.
	$32^{\circ}{\cdot}18$	$80''{\cdot}28$	1892·134
	31·88	80·31	1892·178
Means	32·03	80·29	1892·16

A reduction of these coordinates gives as the place of the 11·0 mag. star relative to the new star $\Delta\alpha + 3^{s}{\cdot}29$, $\Delta\delta + 68''{\cdot}07$.

From an observation on the meridian on February 20, I found the approximate Mean Right Ascension of the new star for 1892·0 to be $5^{h}\ 25^{m}\ 3^{s}{\cdot}33$. The colour of the new star has been noted by me to be pale yellow, or pale yellow with a slight tinge of orange.

Knowles Lodge, Cuckfield:
1892 *March* 9.

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Note on the Spectrum of Nova Aurigæ. By E. W. Maunder.

The appearance of the new star discovered by Dr. Anderson near χ *Aurigæ* happened at a most unfortunate time for spectroscopic observation at the Greenwich Observatory, since the old 12¾ inch refractor had been dismounted some months, and its successor, the 28-inch, had not come to hand. There was, therefore, at the time no telescope available to which either of the spectroscopes of the Observatory could be applied. Under these circumstances the best course appeared to be to try and utilise the object-glass prism presented to the Observatory by Sir Henry Thompson, and the Astronomer Royal directed me to attach it to the 9-inch photographic telescope which the same donor had also given. As, however, that telescope had been employed for a different work, and as, therefore, the prism had never been tested with it, several serious difficulties were encountered, and, partly owing to the delays thus caused, and partly to the continued cloudy weather, which greatly hindered the work of adjustment, it was not until February 18 that any exposure could be made upon the Nova, and this was rendered useless by the cloudy state of the sky. On February 22 an exposure was, however, made more successfully, though two serious drawbacks prevented the photograph being a sharp one. The first difficulty was that the telescope-tube was not long enough to get a good focus, and the second that the enormous weight of the Lassell telescope, to which the Thompson instrument is attached, causes it to flex to a marked amount when off the meridian, and hence the star can with difficulty be made to preserve the same position in declination during a long exposure, and of course any drift in declination must be fatal to the definition of the lines.

The plate, to which an exposure of 70 minutes was given, however, shows the more pronounced lines in the spectrum, though, for the reasons above mentioned, their definition is only poor. A preliminary measurement and reduction of the photograph give the following positions for the lines :—

Line.	Bright lines.	Dark lines.
	4919	
F	4860	
	4629	
	4580	
	4547	
	4510	
	4472	
G	4340	4316